UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

### NOTICE OF ALLOWANCE AND FEE(S) DUE

20462

7590

10/01/2010

GlaxoSmithKline GLOBAL PATENTS -US, UW2220 P. O. BOX 1539 KING OF PRUSSIA, PA 19406-0939 EXAMINER

ROGERS, JAMES WILLIAM

ART UNIT PAPER NUMBER

1618

DATE MAILED: 10/01/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/470,438	01/06/2004	Stephen Mark McAllister	P51223	8426

TITLE OF INVENTION: PHARMACEUTICAL FORMULATION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	01/03/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

### Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where m

appropriate. All further indicated unless correct maintenance fee notifica	ed below or directed otl	ng the Patent, advance of herwise in Block 1, by (	orders and notification of r (a) specifying a new corres	maintenance fees v spondence address	vill be mailed ; and/or (b) ir	to the current condicating a separa	orrespondence address as ate "FEE ADDRESS" for
	ENCE ADDRESS (Note: Use B	lock 1 for any change of address)	Fee pap	(s) Transmittal Th	is certificate c il paper, such	annot be used for as an assignment	domestic mailings of the any other accompanying or formal drawing, must
GlaxoSmithKl GLOBAL PATE P. O. BOX 1539	ine ENTS -US, UW222	1/2010 <b>20</b>	I he Stat add tran	Cer reby certify that the es Postal Service versed to the Mai smitted to the USP	nis Fee(s) Trar with sufficient 1 Stop ISSUE	niling or Transm asmittal is being of postage for first FEE address at 2885, on the dat	deposited with the United class mail in an envelope bove, or being facsimile
KING OF PRUS	SSIA, PA 19406-09	39					(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORNEY	DOCKET NO.	CONFIRMATION NO.
10/470,438 TITLE OF INVENTION	01/06/2004 I: PHARMACEUTICAL	FORMULATION	Stephen Mark McAllister		P51	1223	8426
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE TOT	AL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0		\$1810	01/03/2011
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	]			
ROGERS, JAM	ÆS WILLIAM	1618	424-451000	J			
"Fee Address" ind PTO/SB/47; Rev 03-( Number is required.  3. ASSIGNEE NAME A PLEASE NOTE: Un	ND RESIDENCE DATA less an assignee is ident h in 37 CFR 3.11. Com	" Indication form ned. Use of a Customer A TO BE PRINTED ON tified below, no assignee	(1) the names of up to or agents OR, alternati (2) the name of a single registered attorney or a 2 registered patent attolisted, no name will be THE PATENT (print or type data will appear on the por a substitute for filing an (B) RESIDENCE: (CITY	wely, e firm (having as a gent) and the nam rneys or agents. If printed.  De) atent. If an assign assignment.	a member a les of up to no name is	23d below, the doc	rument has been filed for
Please check the appropr	riate assignee category or	r categories (will not be p	printed on the patent): $\Box$	Individual 🗖 C	orporation or o	other private grou	p entity 🗖 Government
4a. The following fee(s) are submitted: ☐ Issue Fee ☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies			b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo	rd. Form PTO-2038	3 is attached.	d fee(s), any defi	
5. Change in Entity Sta	i <b>tus</b> (from status indicate as SMALL ENTITY stati		☐ b. Applicant is no lon	gor claiming SMA	II ENTITY o	tatus Saa 27 CEI	P 1.27(α)(2)
NOTE: The Issue Fee an	d Publication Fee (if req		ed from anyone other than t				
Authorized Signature				Date			
Typed or printed name				Registration 1	No		
This collection of inform an application. Confiden submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 223	tiality is governed by 35 d application form to the ions for reducing this bu /irginia 22313-1450. DO	CFR 1.311. The information U.S.C. 122 and 37 CFR to USPTO. Time will varied to the total of the USPTO. SEND FEES OR	on is required to obtain or not in the control of the completed of the control of	retain a benefit by timated to take 12 vidual case. Any co er, U.S. Patent and O THIS ADDRES:	the public whi minutes to cor omments on the Trademark O S. SEND TO:	ch is to file (and be mplete, including ne amount of time ffice, U.S. Depart Commissioner fo	by the USPTO to process) gathering, preparing, and e you require to complete tment of Commerce, P.O. r Patents, P.O. Box 1450,

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

OMB 0651-0033

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450

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APPLICATION NO.	FII	LING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/470,438	0	1/06/2004	Stephen Mark McAllister	P51223	8426
20462	7590	10/01/2010		EXAM	INER
GlaxoSmithKli	ne			ROGERS, JAM	ES WILLIAM
GLOBAL PATE		UW2220		ART UNIT	PAPER NUMBER
P. O. BOX 1539		0406 0020		1618	
KING OF PRUSSIA, PA 19406-0939		9400-0939		DATE MAILED: 10/01/2010	

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)			
	10/470,438	MCALLISTER ET AL.			
Notice of Allowability	Examiner	Art Unit			
	JAMES W. ROGERS	1618			
The MAILING DATE of this communication appeal All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI	(OR REMAINS) CLOSED in or other appropriate commu IGHTS. This application is s	this application. If not included nication will be mailed in due course. <b>THIS</b>			
1. This communication is responsive to <u>Applicant Arguments</u> .	<u> Remarks Made in an Amend</u>	<u>dment filed 05/12/2010</u> .			
2. ☑ The allowed claim(s) is/are <u>56-70</u> .					
<ul> <li>3.  Acknowledgment is made of a claim for foreign priority ur</li> <li>a)  All b)  Some* c)  None of the:</li> <li>1.  Certified copies of the priority documents have</li> <li>2.  Certified copies of the priority documents have</li> <li>3.  Copies of the certified copies of the priority documents have</li> <li>International Bureau (PCT Rule 17.2(a)).</li> </ul>	been received. been received in Applicatio	n No			
* Certified copies not received:					
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.					
<ol> <li>A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give</li> </ol>					
5. CORRECTED DRAWINGS ( as "replacement sheets") mus	st be submitted.				
(a) $\square$ including changes required by the Notice of Draftspers	on's Patent Drawing Review	ı ( PTO-948) attached			
1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date					
<ul><li>(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date</li></ul>					
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t					
6. DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT					
<ul> <li>Attachment(s)</li> <li>1. ☐ Notice of References Cited (PTO-892)</li> <li>2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>3. ☐ Information Disclosure Statements (PTO/SB/08),</li></ul>	6. ☐ Interview Su Paper No./l 7. ☑ Examiner's	Formal Patent Application  Jummary (PTO-413),  Mail Date  Amendment/Comment  Statement of Reasons for Allowance			
	/Michael G. Ha Supervisory Pat	rtley/ ent Examiner, Art Unit 1618			

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dara L. Dinner on 7/26/2010.

The application has been amended as follows:

### Specification

Specification on page 26 line 30 has been amended as follows: The new sentence "The surfactant(s) can also be present in an amount less than 5% w/w." has been added after the recitation "surfactant(s)." in line 30 of page 26.

This amendment to the specification finds support in the original claim set, specifically claim 3.

#### Claims

Claims 42,44-54,71-94 and 96-109 are cancelled.

Claim 56 has been amended as follows:

- 56. A process for making a pharmaceutical dosage form comprising the steps of:
  - a) introducing

a copolymer of methyl acrylate, methyl methacrylate and methacrylic acid, with a ratio of free carboxyl groups to esters groups of 1:10, and an average molecular weight of approximately 220,000, present in an amount of about 20 to 90% w/w, and

an excipient composition comprising:

a lubricant present in an amount of about 10 to about 25% w/w; at least one dissolution-modifying excipient selected from the group consisting of a swellable solid, disintegrant, non-reducing sugar, water soluble filler, wicking agent, and an inorganic salt present in an amount of about 2.5 to about 70% w/w; and

a surfactant present in an amount of less than 5% w/w, the surfactant selected from a block copolymer of ethylene oxide and propylene oxide, lecithin, sodium dioctyl sulfosuccinate, sodium dodecyl sulphate, polyoxyl 40 hydrogenated castor oil, polyoxyethylene sorbitan fatty acid ester, sorbitan fatty acid ester, polyethylene glycol, d-alpha-tocopheryl polyethylene glycol 1000 succinate, or a sucrose fatty acid ester, or combinations and mixtures thereof; and

optionally a plasticizer present in an amount of 0 to 10% w/w, optionally a processing agent present in an amount of 0 to about 10% w/w;

simultaneously, and at substantially the same location, into an elongated hot melt extruder:

- b) mixing said copolymer and said excipient composition in the hot melt extruder to form a homogeneous composition, and ejecting the homogeneous composition in the form of a strand from the hot melt extruder though a die at a location remote from said same location at which the copolymer and said excipient composition are introduced;
  - c) cutting the strand into pellets;
- d) introducing said pellets into an injection molder and forming capsule shells by injection molding.

Art Unit: 1618

Claim 58 has been amended as follows:

58. The process according to Claim 56, in which the surfactant is selected from sodium dodecyl sulphate or a block copolymer of ethylene oxide and propylene oxide.

Claim 65 line 2 has been amended as follows, the word "out" has been added between the words "carried" and "using".

Claim 66 line 2 has been amended as follows, the word "out" has been added between the words "carried" and "using".

Claim 67 line 2 has been amended as follows, the word "out" has been added between the words "carried" and "using".

Claim 68 line 2 has been amended as follows, the word :"compartments" has been deleted and the word "shells" has been added to replace the word "compartments".

Claim 69 line 1 has been amended as follows, the word "compartments" has been deleted and the word "shells" has been added to replace the word "compartments".

Claim 69 line 3 has been amended as follows, the word "components" has been deleted and the word "shells" has been added to replace the word "components".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES W. ROGERS whose telephone number is (571)272-7838. The examiner can normally be reached on 9:30-6:00.

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Art Unit: 1618

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael G. Hartley/ Supervisory Patent Examiner, Art Unit 1618

# **EAST Search History**

# **EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L7	536	(capsule near (shell or wall)).CLM.	US-PGPUB; USOCR	ADJ	ON	2010/07/28 11:13
L8	783	(INJECTION AND EXTRUDED).CLM.	US-PGPUB; USOCR	ADJ	ON	2010/07/28 11:13
L9	1087	((\$5methyl near3 acrylate) and (\$5methyl near3 methacrylate) and (\$5methacrylic near3 acid)).clm.	US-PGPUB; USOCR	ADJ	ON	2010/07/28 11:13
L10	1	7 and 9	US-PGPUB; USOCR	ADJ	ON	2010/07/28 11:14

### 7/28/2010 11:15:24 AM

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Application/Control No.	Applicant(s)/Patent under Reexamination	
10/470,438	MCALLISTER E	T AL.
Examiner	Art Unit	
JAMES W. ROGERS	1618	

SEARCHED						
Class	Subclass	Date	Examiner			

INTERFERENCE SEARCHED						
Subclass	Date	Examiner				
451	7/28/2010	JR				
	Subclass	Subclass Date				

SEARCH NOTES (INCLUDING SEARCH STRATEGY)					
	DATE	EXMR			
Considered IDS's newly submitted	7/28/2010	JR			
Patentability conf. with Mike Hartley, SPE and Jake Vu, pri. examiner	7/27/2010	JR			

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/060,849	01/30/2002	Stephen Mark McAllister	P51223	9605	
GLAXOSMITH	7590 06/30/201 HKLINE	EXAMINER			
Corporate Intellectual Property - UW2220			TRAN, SUSAN T		
P.O. Box 1539 King of Prussia, PA 19406-0939			ART UNIT	PAPER NUMBER	
			1615		
			MAIL DATE	DELIVERY MODE	
			06/30/2010	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Advisory Action Before the Filing of an Appeal Brief

Application No.	Applicant(s)	
10/060,849	MCALLISTER ET A	L.
Examiner	Art Unit	
S. TRAN	1615	

	S. IRAN	1615				
The MAILING DATE of this communication appe	ars on the cover sheet with the c	correspondence add	ress			
THE REPLY FILED <u>28 June 2010</u> FAILS TO PLACE THIS APP	LICATION IN CONDITION FOR A	LLOWANCE.				
1. The reply was filed after a final rejection, but prior to or on application, applicant must timely file one of the following application in condition for allowance; (2) a Notice of Apperor Continued Examination (RCE) in compliance with 37 C periods:	the same day as filing a Notice of A replies: (1) an amendment, affidavited al (with appeal fee) in compliance w	Appeal. To avoid abar t, or other evidence, w with 37 CFR 41.31; or	hich places the (3) a Request			
a) The period for reply expires 3 months from the mailing date b) The period for reply expires on: (1) the mailing date of this Ar no event, however, will the statutory period for reply expire la Examiner Note: If box 1 is checked, check either box (a) or (I MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f	dvisory Action, or (2) the date set forth in ter than SIX MONTHS from the mailing b). ONLY CHECK BOX (b) WHEN THE	g date of the final rejection	n.			
Extensions of time may be obtained under 37 CFR 1.136(a). The date of have been filed is the date for purposes of determining the period of extunder 37 CFR 1.17(a) is calculated from: (1) the expiration date of the set forth in (b) above, if checked. Any reply received by the Office later may reduce any earned patent term adjustment. See 37 CFR 1.704(b). NOTICE OF APPEAL	ension and the corresponding amount of hortened statutory period for reply origin	of the fee. The appropria nally set in the final Offic	ate extension fee e action; or (2) as			
<ol> <li>The Notice of Appeal was filed on <u>28 June 2010</u>. A brief in date of filing the Notice of Appeal (37 CFR 41.37(a)), or an Since a Notice of Appeal has been filed, any reply must be AMENDMENTS</li> </ol>	ny extension thereof (37 CFR 41.37	7(e)), to avoid dismiss	al of the appeal.			
	t mains to the slate of files a buist					
3.  ☐ The proposed amendment(s) filed after a final rejection, be (a) ☐ They raise new issues that would require further cor (b) ☐ They raise the issue of new matter (see NOTE below.)	nsideration and/or search (see NOT		cause			
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or						
(d) ☐ They present additional claims without canceling a c		ected claims.				
NOTE: <u>See Continuation Sheet</u> . (See 37 CFR 1.11						
<ol> <li>The amendments are not in compliance with 37 CFR 1.12</li> <li>Applicant's reply has overcome the following rejection(s):</li> </ol>		mpliant Amendment (I	PTOL-324).			
<ol> <li>Newly proposed or amended claim(s) would be all- non-allowable claim(s).</li> </ol>	owable if submitted in a separate, t	imely filed amendmer	t canceling the			
7. For purposes of appeal, the proposed amendment(s): a) how the new or amended claims would be rejected is proved the status of the claim(s) is (or will be) as follows:		l be entered and an ex	rplanation of			
Claim(s) allowed: Claim(s) objected to: Claim(s) rejected: <u>1-33,35,38-40,71-97,112-132 and 134-</u>	136					
Claim(s) withdrawn from consideration:  AFFIDAVIT OR OTHER EVIDENCE						
8.  The affidavit or other evidence filed after a final action, but because applicant failed to provide a showing of good and was not earlier presented. See 37 CFR 1.116(e).						
9. The affidavit or other evidence filed after the date of filing a entered because the affidavit or other evidence failed to or showing a good and sufficient reasons why it is necessary	vercome <u>all</u> rejections under appea and was not earlier presented. Se	al and/or appellant fails ee 37 CFR 41.33(d)(1)	s to provide a			
10.	n of the status of the claims after er	ntry is below or attach	ed.			
11. The request for reconsideration has been considered but	does NOT place the application in	condition for allowan	ce because:			
12. Note the attached Information <i>Disclosure Statement</i> (s). (13. Other:	PTO/SB/08) Paper No(s)					
	/S. TRAN/ Primary Examiner, Art U	nit 1615				
	i filliary Examinor, Art O	1110 10 10				

Continuation of 3. NOTE: newly submitted amendment requires reconsideration and search.

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

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GLAXOSMITHKLINE Corporate Intellectual Property - UW2220 P.O. Box 1539 King of Prussia, PA 19406-0939		EXAMINER		
		TRAN, SUSAN T		
		ART UNIT	PAPER NUMBER	
			1615	
			MAIL DATE	DELIVERY MODE
			12/28/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applica	nt(s)	
		10/060,849	MCALLI	MCALLISTER ET AL.	
	Office Action Summary	Examiner	Art Unit	t	
		S. Tran	1615		
Period fo	The MAILING DATE of this communication r Reply	n appears on the cove	sheet with the correspon	ndence address	
A SH WHIC - Exter after - If NC - Failu Any r	ORTENED STATUTORY PERIOD FOR RICHEVER IS LONGER, FROM THE MAILIN asions of time may be available under the provisions of 37 CF SIX (6) MONTHS from the mailing date of this communicatio period for reply is specified above, the maximum statutory pre to reply within the set or extended period for reply will, by seply received by the Office later than three months after the part of patent term adjustment. See 37 CFR 1.704(b).	G DATE OF THIS CO FR 1.136(a). In no event, how n. eriod will apply and will expire statute, cause the application t	OMMUNICATION.  ever, may a reply be timely filed  SIX (6) MONTHS from the mailing of become ABANDONED (35 U.S.C.)	date of this communication. C. § 133).	
Status					
2a)⊠	Responsive to communication(s) filed on this action is <b>FINAL</b> . 2b)	This action is non-fin		as to the merits is	
٥/١	closed in accordance with the practice und	•	• •		
Dispositi	on of Claims	ioi Ex parto Quayio,	1000 0.2. 11, 100 0.0. 2	-10.	
5)□ 6)⊠ 7)□	Claim(s) <u>1-33,35,38-40,71-97,112-132 and</u> 4a) Of the above claim(s) is/are with Claim(s) is/are allowed. Claim(s) <u>1-33,35,38-40,71-97,112-132 and</u> Claim(s) is/are objected to. Claim(s) are subject to restriction a	ndrawn from consider <u>d 134-136</u> is/are rejec	ation. sted.		
Applicati	on Papers				
10)	The specification is objected to by the Example The drawing(s) filed on is/are: a) Applicant may not request that any objection to Replacement drawing sheet(s) including the control of the oath or declaration is objected to by the	accepted or b) ob the drawing(s) be held prrection is required if th	in abeyance. See 37 CFR e drawing(s) is objected to.	1.85(a). See 37 CFR 1.121(d).	
Priority ι	ınder 35 U.S.C. § 119				
a)[	Acknowledgment is made of a claim for for All b) Some * c) None of:  1. Certified copies of the priority docum 2. Certified copies of the priority docum 3. Copies of the certified copies of the application from the International Business the attached detailed Office action for a	ments have been rece nents have been rece priority documents ha ureau (PCT Rule 17.2	ived. ived in Application No ave been received in this (a)).	· 	
2)  Notic 3) Inforr	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948 nation Disclosure Statement(s) (PTO/SB/08)	5)	Interview Summary (PTO-413) Paper No(s)/Mail Date. Notice of Informal Patent Appli	•	
Pape	r No(s)/Mail Date	6)	Other:		

### **DETAILED ACTION**

# Claim Rejections - 35 USC § 112

The 112 rejections of record have been withdrawn in view of applicant's Remarks filed 09/04/09, at pages 23-27.

### Claim Rejections - 35 USC § 103

Claims 1, 2, 7-16, 20-22, 39, 40, 73, 74, 81-74, 87-90, 92-95, 112 and 113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petereit et al. US 20020160042, in view of Lehmann et al. US 5,705,189.

Petereit teaches an injection molding composition comprising: a) 45-100% methacrylate copolymer; b) 0.1-3% lubricant; c) 0-50% drier; d) 0-30% plasticizer; e) 0-100% additives or auxiliaries; f) active agent; and g) 0-20% of another polymer or copolymer (paragraphs 0019-0027). Methacrylate copolymer includes 50-70% methyl acrylate, 10-30% methyl methacrylate, and 5-15% methacrylic acid (a 7:3:1 ratio if converted) (paragraph 0038). Plasticizer includes castor oil, sorbitan ester, and polyethylene glycol (paragraphs 0050-0051). Other polymer or copolymer includes polyvinyl pyrrolidone (paragraphs 0078-0080). Petereit further teaches the shape of the molding includes capsule, part of a capsule such as half or a capsule (paragraph 0095). Petereit also teaches the wall thickness of the obtained capsule is of 0.6 mm (paragraph 0101).

Petereit does not explicitly teach the claimed percent amount of lubricant from 5% to about 30%. However, differences in concentration will not support the

patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In the present case, it would have been obvious to one of ordinary skill in the art to, by routine experimentation select a lubricant amount that falls within the claimed range with the expectation of lat least similar result. This is because Petereit teaches the use of the same lubricant, such as stearyl alcohol, for the same purpose, namely, as a mold releasing agent (paragraphs 0041-0044). Further, the use of lubricant as a mold releasing agent in the claimed amount is known in the art. See for example the teaching of Lehmann at column 3, lines 65-67; and example 1. Lehmann teaches the use of 6% of the mold releasing agent, based on the weight of the polymer. Accordingly, it would have been obvious to one of ordinary skill in the art to modify the molding composition of Petereit using lubricant in the claimed amount in view of the teachings of Lehmann.

Petereit further does not teach that the capsule shell composition is substantially pH-independent. It is noted that nowhere in Petereit does the teaching of pH-dependent disclose. Accordingly, the burden is shifted to applicant to show that the capsule composition of Petereit is substantially pH-dependent. This is because Petereit teaches the use of the same polymers and in the same amounts to prepare a composition for the same purpose desired by the applicant, namely, a capsule shell composition useful in pharmaceutical art.

Claims 3-6, 18 and 75-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petereit et al. US 20020160042, in view of Bolles US 3,779,942 and Zentner US 4,795,644.

Petereit is relied upon for the reason stated above. Petereit does not expressly teach the use of surfactant.

Bolles teaches a capsule shell composition comprising well known polymer such hydroxypropyl cellulose, and surfactant such as sodium dioctyl sulfosuccinate in an amount of from about 0.001-10% (abstract; and column 2, lines 20-59). Thus, it would have been obvious to one of ordinary skill in the art to optimize the capsule shell composition of Petereit to include surfactant to obtain the claimed invention. This is because Bolles teaches that the addition of surfactant to improve capsule shell storage stability, uniformity and strength (abstract; and column 2, lines 2-8).

Bolles does not teach the claimed surfactant such as sodium dodecyl sulfate.

Zentner teaches useful surfactant for wall forming composition includes sodium dodecyl sulfate, and sodium dioctyl sulfosuccinate (column 13, lines 53 through column 14, lines 1-22). Thus, it would have been obvious to one of ordinary skill in the art to, by routine experimentation select sodium dodecyl sulfate as a surfactant, because Zentner teaches the equivalency between sodium dodecyl sulfate, and sodium dioctyl sulfosuccinate, and because Zentner teaches the use of sodium dodecyl sulfate in wall forming composition is known in the art.

Claims 1-33, 35, 38-40, 71-97, 112-132 and 134-136 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petereit et al. US 20020160042, in view of Lehmann et al. US 5,705,189, Hatano et al. US 6,309,666, and Klug et al. US 3,314,809.

Petereit is relied upon for the reasons stated above. Petereit further does not teach the inclusion of additives such as lactose and mannitol.

Hatano teaches coated capsule compositions comprising a hard outer shell (abstract). The compositions may be formulated for guick release at a desired location in the gastrointestinal tract (column 2, lines 49-62). Suitable materials for the outer shell include methacrylate co-polymers and acrylic co-polymers (column 5, line 42 to column 6, line 23). Each of the components of the capsule, including the hard outer shell, may include various excipients, including binders, disintegrants, lubricants, aggregation-preventing agents, plasticizer, and a surfactant. Excipients include mannitol, lactose and starch. Binders include ethylcellulose, polyvinylpyrrolidone, HPMC, and polyethylene glycol (column 12, lines 1-11). Disintegrants include polyvinylpyrrolidone and hydroxypropylcellulose (column 12, lines 12-17). Lubricants and aggregation-preventing agents include talc, magnesium stearate, and colloidal silicon dioxide. Plasticizers include diethyl phthalate, dibutyl phthalate, and polyethylene glycol. Surfactants include polyoxyethylene sorbitan monooleate, poiyoxyethylene hydrogenated castor oil, and sodium dodecyl sulfate (column 11, line 52 to column 12, line 65). Such additives may be added in any amount within the scope of the knowledge of one of ordinary skill in the art (column 13, lines 3-5). Thus, it would

have been obvious to one of ordinary skill in the art to optimize the capsule shell composition of Petereit to include the excipients in view of the teachings of Hatano. This is because Hatano teaches the use of well known excipients in pharmaceutical art in capsule shell composition, and because Petereit teaches the desirability of using excipients or other auxiliaries known in the art.

It is noted that applicant argues that Petereit teaches the use of HPC in a long list, and there is no motivation to select HPC. However, Klug teaches a capsule shell composition comprising HPC (columns 1-2). Thus, the skilled artisan would have been motivated to select HPC as other polymer for the capsule shell composition of Petereit in view of the teachings of Klug, because Klug teaches that HPC is the stable thermoplastic material for making excellent articles such as capsule shell (column 4, lines 56 through column 5, lines 1-15).

### Response to Arguments

Applicant's arguments filed 09/04/09 have been fully considered but they are not persuasive.

Applicant argues that the formulation of the copolymer blend used in the Petereit process does not teach a combination of two (2) dissolution modifying agents as required by claim 1 herein. One of the dissolution modifying excipients for use in the instant invention is a swellable solid. In Petereit, there is no express statement of swellable solids, but use of a second copolymer. The copolymer is an optional excipient in Petereit's blend, being present from 0-20% w/w. Consequently, the resulting blend

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does NOT require such an excipient to being present. The list of polymers suitable for use in the Petereit formulation in disclosed in paragraph 0080 shown below. This paragraph provides for a long list of many polymers not claimed or disclosed for use within the context of Applicants invention as a dissolution modifying excipient.

Therefore, even if a copolymer is present one would not necessarily be directed to pick and choose as an excipient that one which Applicant describes as a dissolution modifying excipient.

However, in response to applicant's argument that "[o]ne of the dissolution modifying excipients for use in the instant invention is a swellable solid. In Petereit, there is no express statement of swellable solids, but use of a second copolymer", it is noted that the "swellable solid" is recited in a Markush group. Thus, at least independent claim 1 does not necessarily require that the "swellable solid" as one of the dissolution modifying excipient in view of the Markush language. Further, in response to applicant's argument that "the copolymer is an optional excipient in Petereit's blend, being present from 0-20% w/w. Consequently, the resulting blend does NOT require such an excipient to being present", the Examiner notes that although the excipient is not required, it can be present. The phrase "optional" clearly indicates that it could be present. Moreover the amount of up to 20% indicates that the excipient does present in the blend.

Moreover, in response to applicant's argument that "the list of polymers suitable for use in the Petereit formulation in disclosed in paragraph 0080 shown below. This paragraph provides for a long list of many polymers not claimed or disclosed for use

within the context of Applicants invention as a dissolution modifying excipient", it is noted that the list of dissolution modifying excipients recited in claim 1 is broad. See for example "swellable solid" or "water soluble filler".

Applicant argues that in the present invention:

- 1) the capsule shell and/or linker is meant to break apart at a particular time, and release the contents of the shell/linker to the GI tract at that time, all at once, not over a period of time to provide a controlled constant rate of release;
- 2) the 4135F polymeric formulations provide for a capsule shell that has a more delayed, or prolonged time period to release the capsule contents into the GI tract; than a gelatin capsule which is of the immediate release;
- 3) when a multicomponent dosage form of the present invention, is assembled it is possible to have a shell subunit that disperses the contents as an immediate release, and be linked to a second, or third, etc. shell subunit that disperses the contents as pulsitile releases, much later down the GI tract; and
- 4) prior to the disclosure by Applicants it was not believed possible to prepare a pH-independent capsule shell or linker itself using the copolymers as recited in the presently amended claims.

However, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the captured features (1) to (4) above) are not recited at least in the rejected independent claim(s). Although the claims are interpreted in light of the

specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

To place the application in condition for allowance, it is suggested to: 1) clarify the dissolution modifying excipients to include specific combination; and 2) incorporate the above captured features 1-4 into all independent claims.

#### Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

# Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Tran whose telephone number is (571) 272-0606. The examiner can normally be reached on M-F 8:30 am to 5:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Wax can be reached on (571) 272-0623. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. Tran/ Primary Examiner, Art Unit 1615